IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
MIDLAND/ODESSA DIVISION

COBBLESTONE WIRELESS, LLC.,	**Civil Action No. 7:24-cv-00232-ADA**
Plaintiff,	**JURY TRIAL DEMANDED**
v.	
APPLE INC.,	
Defendant.	

PLAINTIFF'S SUR-REPLY CLAIM CONSTRUCTION BRIEF

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I.   **"PREDISTORTED" ('347 PATENT, CLAIM 19)**

Apple's reply argues that a comparison to an overall prior art technique justifies the exclusion of a particular tool used in that technique. But the specification does not support excluding the prior art technique wholesale much less a component part of that technique. Rather, this is comparable to an electric vehicle patent excluding nuts and bolts because it distinguished an internal combustion engine that uses nuts and bolts. Such is an absurd reading of the patent and at odds with Apple's case law support. The Court should thus reject Apple's construction in favor of the plain and ordinary meaning.

> Apple's whole basis for both its proposed negative limitations is '347 patent at 11:59-12:6:
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> B. Comparison to Precoding Techniques
> The systems and methods described herein can make use of the concept of "pre-distortion," which has significant difference from the conventional precoding techniques. The latter can make use of simplified representations of [the] channel, e.g. in terms of code-book, while the system and methods described above make use of the parameters of the propagation channel, e.g. the delay, Doppler frequencies, directions of departure and directions of arrival. This full-dimensional parametric description of the channel can be much more accurate than using the codebooks. Furthermore, only by using the precise channel parameters, synchronization of the signals to form a 'focus' on specific user can be possible. The conventional precoding techniques cannot be used to create a concertation of the signal at a center point (which can move) in space.

But this section never proclaims "all embodiments of the present invention contemplated and disclosed herein" are addressed to a configuration incompatible with code book. No, it explains conventional precoding techniques use simplified representations and "methods described above make use of the parameters of the propagation channel." There is no suggestion that predistortion cannot include code-book, only that simplified representations of channels are different from the parameters of the propagation channel, something neither party disputes.

This is the distinction Apple misses between the '347 Patent and the case law it cites. In both *SciMed* and *Gaus*[1] the described prior art was expressly incompatible with the invention and did not contemplate any potential overlap. In *SciMed*, the Federal Circuit considered balloon dilation catheters claimed to have two passageways or lumens. *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1339 (Fed. Cir. 2001). The parties agreed that **only** two arrangements of these lumens were known in the art, a dual, side-by-side, configuration and a coaxial, one within the other, configuration. *Id*. The patent clearly and repeatedly explains the invention is directed to the latter, and thus not the former. The Federal Circuit notes the patent abstract and summary of invention explain the patent is directed to the coaxial configuration. *Id*. at 1342-43. The patent also explained "disadvantages of certain prior art structures" but "most compelling" was the explanation that the coaxial configuration, "the intermediate sleeve structure defined above is the basic sleeve structure for *all embodiments of the present invention contemplated and disclosed herein.*" *Id*. In *Gaus*, the specification explained "[t]he object of the invention is to devices a protective device … which device will respond in an extremely short time … *independently of the operating state of the apparatus*," and thus "cannot encompass a hair dryer with a protective device that relies on current passing between a probe and the electrical operating system, since such a device would be triggered only when the hair dryer was operating." *Gaus v. Conair Corp.*, 363 F.3d 1284, 1289 (Fed. Cir. 2004) (emphasis in original). There is no similar

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[1] Again, *David Netzer* does not support the notion that distinguishing the invention from the prior supported a negative limitation. Rather, the Federal Circuit found that the patents use of the term "fractionating" was distinct from "conventional extraction" and the Sulfolane process was conventional extraction. *David Netzer Consulting Eng'r LLC v. Shell Oil Co.*, 824 F.3d 989, 995 (Fed. Cir. 2016) ("Thus, according to the patentee, conventional extraction and conventional fractionation are different methods. Unlike conventional fractionation, conventional extraction—which includes the Sulfolane process—can successfully remove non-aromatic hydrocarbon azeotropes to produce highly pure benzene. The Sulfolane process is therefore conventional extraction, *not* "conventional fractionation." The Sulfolane process was developed by Shell in the 1960s; it is a conventional method of separation. If one were to adopt Netzer's proposed construction that "fractionation" means separation by any method, then "conventional fractionation" would mean separation by any conventional method, which would encompass the Sulfolane process. That interpretation would be contrary to the specification.")

explanation of what the invention is, i.e. "the intermediate sleeve structure," or protective device which will respond independently of the operating state, that is incompatible with another technology, i.e. the dual configuration or protective devices that respond depending on the operating state, in the patent.

To start, nowhere does the '347 Patent even compare "predistortion" or the overall invention with code book, much less provide they are incompatible. Rather, code book is a particular tool used in conventional precoding techniques. *See* '347 patent at 11:60-64. Where the patent compares "systems and methods … [that] can make use of the concept of 'predistortion'" and "conventional precoding techniques" it says nothing of code book in "predistortion." *See id*. at 11:59-12:6. This is several steps removed from such a comparison, much less a disavowal of code book from the invention as a whole. Unlike in *SciMed* where the parties agreed only two configuration existed or *Gaus* where the language, independently of operating state, fundamentally excluded other techniques, nothing here supports the notion that "predistortion" is incompatible with any particular technique used in conventional precoding. In terms of *SciMed*, excluding a tool within "conventional precoding techniques" is comparable to excluding lumens entirely because they were a tool in the distinguished dual configuration. Indeed, the rest of the section would suggest that it is the additions taught by the patent, and already claimed, rather than the exclusion of prior tools, that is key.

The relevant section from the specification concludes that "full-dimensional parametric description of the channel" i.e. the parameters of the propagation channel, "can be much more accurate than using the code books." *Id*. at 11:66-12:2. Indeed, "only by using the precise channel parameters," with no mention of excluding any other parameter, "synchronization of the signals to form a 'focus' on specific user can be possible." *Id*. at 12:2-12:4. In contrast, without "the precise

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channel parameters" "conventional precoding techniques cannot be used to create a concentration of the signal at a certain point(which can move) in space." *Id*. at 12:4-6. None of this supports the exclusion of codebook, only the superiority of using other, claimed, elements. *See e.g. Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1260 (Fed. Cir. 1999)("although the. Applicant noted certain inefficiencies in the [prior] system, the patent never clearly disavows the [prior] method as being incapable of performing the claimed functions.")

What the patent does compare in this section is "simplified representations of channel[s], e.g. in terms of code-book" and "parameters of the propagation channel, e.g. the delay, Doppler frequencies, directions of departure and directions of arrival." *Id*. at 11:64-66. At best, code-book is compared to "the delay, Doppler frequencies, directions of departure and directions of arrival." Neither party questions if "code-book" qualifies as any of these parameters, under their plain and ordinary meaning it does not. As such, if the Court were to find that "code-book" is disavowed from anything, it should only be from what it is directly compared to and not imported as a negative limitation to all claims.

Because Apple ignores the full context of the cited discussion to apply suggest an excessively broad disclaimer, its construction should be rejected. "Predistorted" should be given its plain and ordinary meaning.

II.   "PATH PARAMETER INFORMATION" ('347 PATENT, CLAIMS 19-22)

Apple's construction for this term seeks to needlessly rewrite a clear term in an attempt to better support the inclusion of a baseless negative limitation. But such a revision of the carefully chosen claim language is unnecessary on the face of the claim. Moreover, Apple bases its negative limitation on the same language that supposedly supports another clear disavowal. Neither part of Apple's construction is justified and should both be rejected.

Apple fails to justify construing "path propagation information" as "estimated parameters of the propagation path." Apple concedes claim 19 already requires "path propagation information to be (1) based on an estimation and (2) specific to a propagation path." Dkt. 32 at 8. Why then does "path propagation information" need further construction? Moreover, why then must information "based on an estimation" be itself an estimation? The claim language clearly contemplates a divergent meaning than just an estimation. For instance the next limitation claims "sending the channel estimation *that includes the path parameter information*." If "path propagation information" was just the estimation, the claim would not distinguish the two.

The real answer is found in the true thrust of Apple's proposed construction, a negative limitation to exclude code book. Apple wants to import a discussion distinguishing "parameters of the propagation channel, e.g. the delay, Doppler frequencies, directions of departure and directions of arrival" from "simplified representations of [the]channel." *Id*. at 8-9. Because "parameters of the propagation channel" is not the claimed "path propagation information," Apple seeks to rewrite the claim to align it with the distinction it seeks to import as a negative limitation. But viewed properly, any distinction drawn from that portion of the specification, does not apply to the intentionally broader "path propagation information."

As explained in detail above, the section Apple cites, '347 patent, 11:59-12:2, does not support a broad, invention wide, disavowal. Focused on the particular language at hand, first there is no comparison between "path propagation information" and "simplified representations of [the] channel." *See* '347 patent and 11:59-12:2. Rather, it compares the particular "parameters of the propagation channel" and lists them "e.g. the delay, Doppler frequencies, directions of departure and directions of arrival." *Id*. But the claims themselves show that "path parameter information" is not coextensive with "the delay, Doppler frequencies, directions of departure and directions of

arrival." Claim 20 provides "wherein the path parameter information … includes at least one of an estimation of a delay, an estimation of a Doppler frequency, an estimation of a directions of arrival, an estimation of a direction of departure, and an estimation of a complex amplitude of the first propagation path." *Id*. at Cl 20. But "[n]either includes, nor comprising, forecloses additional elements…" *SanDisk Corp. v. Memorex Prods., Inc.*, 415 F.3d 1278, 1284 (Fed. Cir. 2005). A narrower, dependent claim, providing that "path parameter information" means at least the listed "parameters of propagation channel" pushes against any narrowing to just that list.

Moreover, Apple's disavowal position is weakened by its own argument. Apple argues that the same two mentions of "codebook" provide the "clear and unmistakable disavowal" needed to create a negative limitation for two entirely different terms. Where, as here, the relevant discussion never offers "predistorted and path parameter information exclude codebook," the suggestion that such discussion can be clear and unmistakable in two entirely different directions is implausible. The reality is the patent only distinguishes the use of specific parameters of propagation channel with simplified representations such as codebook and then later claims those specific parameters. Importing an already claimed distinction into a claim that expressly does not include it is improper.

Because Apple ignores the full context of the cited discussion to apply an excessively broad disclaimer, its construction should be rejected. "Path parameter information" should be given its plain and ordinary meaning.

III.   **CONCLUSION**

For the reasons provided above both disputed terms should be given their plain and ordinary meaning.

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CERTIFICATE OF SERVICE

I certify that on June 27, 2025, a true and correct copy of the foregoing document was electronically filed with the Court and served on all parties of record via the Court's CM/ECF system.

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/s/ Reza Mirzaie
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